

BITCOIN PROTOCOL

Bitcoin Background

Bitcoins are a form of digital currency in which encryption techniques are used to regulate the generation of Bitcoins and simultaneously verify Bitcoin transfers. This system operates independently of traditional institutions in a distributed fashion by many individuals and companies around the world. The currency is stored exclusively digitally on computer systems, mobile devices, or online services in what is known as a “Digital Wallet”. Unlike digital pictures or online documents, Bitcoins cannot be printed or saved in physical form.

Bitcoins are awarded to individuals or companies who donate their highly specialized machines’ (“Miners”) effort to verifying Bitcoin transactions via a process explained below. Cryptowatt’s Butte Bitcoin mining facility houses 32,225 such Miners. Bitcoin transactions are verified by solving complex math problems (“Hashing”). These math problems are assigned and distributed to the individual Miners from a centralized collection of servers (“Pool Servers”), which records each machine’s activity (“Proof Of Work”).

“Blockchain” Background

A blockchain technology can be used in many different instances, with cryptocurrency (Bitcoin) only one example. A blockchain has three major characteristics: Distributed, Decentralized, and Public. Blockchain is a technology that is distributed across multiple machines so even widespread outages will not impact its service. A blockchain is decentralized in that no one authority can dictate what happens, but instead the blockchain is governed by the rules written into the software everyone runs distributed around the world. A blockchain is also a public record in that anyone can download the blockchain and read the transactions recorded without fear of alteration.

How Bitcoin uses Blockchain

Bitcoin uses blockchain technology as a software record of every transaction for each Bitcoin, what wallet each Bitcoin was originally earned into and how Bitcoins, or fractions of Bitcoins, have moved between wallets since. Approximately every ten minutes a new block, containing transactions for that time period, are added to the Bitcoin blockchain.

BTC Rewards

12.5 Bitcoins (BTC), plus transaction fees, are awarded to the pool that solved the math problem thus adding another block to the blockchain. This reward is distributed, on a pro-rata basis to everyone in the pool who contributed during the specific time interval when that block was written to the blockchain. BTC is the abbreviation for Bitcoin, where BTC.com is the website that operates a pool for mining Bitcoins. BTC.com is one of the largest pools in the world and the pool Butte uses. BTC.com totals all the rewards earned each day, who contributed to each reward, and distributes BTC on a daily basis to the appropriate pool members. When Cryptowatt's Butte Bitcoin mining facility operates at full capacity, it could theoretically earn between 10.9 and 12.1 BTC per day, which aligns well with the actual 11.2-11.8 BTC earned per day in the last 3 weeks of November, 2019.

How Bitcoins are "Paid Out"

In each Bitcoin mining pool, all miners contributing are configured with a "worker_id" associated with an individual account. This is how BTC.com knows the 32,225 machines in Cryptowatt's Butte Bitcoin mining facility are associated with CryptoWatt and not some other member of their pool. These accounts are associated with specific individual wallets, so the proceeds of each day's mining are paid out to the correct companies.

On a daily basis, BTC.com will divide, on a pro-rata basis based on each machine's contributed effort, or proof of work, the correct number of Bitcoins into the wallet associated with each account. If no wallet is assigned to an account, BTC.com will keep these coins in escrow until a wallet is assigned.

When a customer is ready to "cash out" these coins, they work with an exchange such as Binance, Coinbase, Gemini, or Kraken to convert Bitcoin to USD. The Bitcoin owners move the Bitcoin out of their wallet to the exchange. The exchange converts the Bitcoin to USD for a fee, and then wires the money into the bank account pre-specified by the customer.

Bitcoin Transaction Security in This Case

FX Solutions Inc. has been the technical and operational contractor for CryptoWatt since the inception of Cryptowatt's Bitcoin mining facility in January 2018. As such, FX Solutions Inc. possesses unique and exclusive expert knowledge of Cryptowatt's Butte Bitcoin mining facility and Bitcoin mining process. Therefore, the Receiver will utilize FX Solutions Inc.'s expertise to ensure that all Bitcoin transactions required as part of his duties and authority will be structured for accountability and security as follows:

1. All miners in Cryptowatt's Butte Bitcoin mining facility mine to the correct btc.com account / worker_id and associated wallet.
2. No Bitcoins are incorrectly removed from Cryptowatt's wallet.
3. Cryptowatt's Bitcoins are converted to USD and moved to the correct bank account.

Ensure all Cryptowatt Butte Bitcoin mining facility miners are mined to the correct wallet:

FX Solutions Inc. has already assigned each physical miner a unique asset tag and maintains an asset database for each miner deployed at Cryptowatt's Butte Bitcoin mining facility. This database ensures FX Solutions Inc. and the Receiver know how many miners are online, offline or being repaired. FX Solutions Inc. will regularly poll this database of expected miners to ensure they are pointed to the correct pool (BTC.com) and the correct worker_id (TBD), thereby ensuring all miners in Cryptowatt's Butte Bitcoin mining facility are contributing to the correct wallet.

FX Solutions Inc. will furnish the Receiver with appropriate reports at his request showing the count of miners that were online during any given polling interval.

FX Solutions Inc. has already secured and will continue to secure the miners at CryptoWatt's Butte Bitcoin mining facility from having their pool name or worker_id changed by multiple protections:

1. Individual miner passwords
2. Private address space
3. External firewalls
4. Continuous polling to detect and alert on misconfigured miners

Ensuring no illicit wallet withdrawals:

Under the Receiver's supervision FX Solutions Inc. will setup wallets to allow incoming transfers (deposits).

Under the Receiver's supervision FX Solutions Inc. will set up security for withdrawals with the Bitcoin wallet provider as follows:

1. All Bitcoin withdrawals and transfers from Cryptowatt's wallet will require confirmation by the Receiver and FX Solutions, Inc.'s CFO.
2. The Receiver and FX Solution Inc.'s CFO will have their identities confirmed in order to execute a withdrawal via telephone or videoconference conference sharing of their respective driver's license number.

3. The Receiver and FX Solution Inc.'s CFO must agree on the amount to be withdrawn and transferred.
4. Withdrawals and transfers are only allowed to a specific exchange specified at the creation of the wallet at the direction of the Receiver.

Ensure Bitcoin converted to USD and moved to correct bank account:

Under the Receiver's direction FX Solutions, Inc. will specify, when creating an account with a Bitcoin exchange, the source wallet and target bank account for transferring Bitcoin converted into USD. In this way, when the wallet provider releases the Bitcoin, and the Bitcoin is converted into USD, the USD can only be transferred to the specific bank accounts determined by the Receiver.